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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/485,026 02/01/00 THIEBLIN

E P-5701

EXAMINER

IM22/0607

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ART UNIT

PAPER NUMBER

1724

DATE MAILED:

06/07/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/485,026

Applicant(s)

THIEBLIN ET AL.

Examiner

Chester T. Barry

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10/5/98, 5/4/00, 2/1/00.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

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appear as two equivalent conversion means, and so are alternatively implemented on the return sludge (see drawings 2 and 3, and column 4, lines 24-26 and 44-46).

An actually non-obvious content of the present invention is expressed in page 2, lines 17-19 (of the English text) concerning the significantly smaller necessary quantity of ozone when both conversion means are combined. Indeed it is a major improvement as ozone is a pollutant that has to be destroyed after use (see page 7, lines 2-6). Suzuki's document does not address this problem of ozone consumption reduction at all, and the Suzuki's figures on column 5, lines 55-58 correspond to 6 g of ozone per gram of dry material in the treated sludge, which is much higher than the figures of claim 15 of the present application. This is why the ozone consumption mentioned in claim 15 is an important feature that has to be considered as a desired low value. This low value is made possible only because it is combined with the mechanical energy as expressed in claim 15.

The Examiner combines both U.S. Patent Nos. 6,000,551 (Kanel) and 6,146,524 (Story) for defining the general knowledge at the time of the filing of the present application.

The Story document (filed December 23, 1998 and having a parent application filing date of September 15, 1997) is posterior to the priority date (August 1, 1997) of the present application and does not have to be considered.

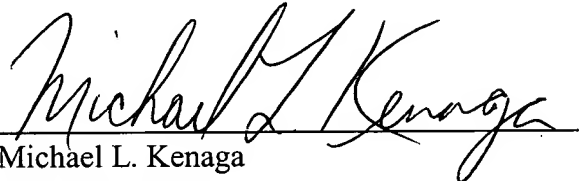
In Kanel's disclosure, the mechanical energy imparted by rotation of an impeller is aimed at dispersing the added gas into fine bubbles (see column 17, lines 48-54 and claims 5 and 7 in this document). This is a means for cell membrane disruption completely different from the mechanism

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used in the present application where no added gas is necessary during mechanical energy supply to the sludge.

In view of the foregoing comments, Applicants respectfully submit that the Examiner's rejections have been overcome and request the Examiner's reconsideration.

Respectfully submitted,

  
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